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(P)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/903,898	07/31/97	ANDERSON	E P127/JAS-737

LM02/0621

EXAMINER

WILSON, J

ART UNIT

PAPER NUMBER

2712

(D)

DATE MAILED:

06/21/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/903,898

Applicant(s)

Anderson et al.

Examiner
Jacqueline Wilson

Group Art Unit
2712



Responsive to communication(s) filed on Jul 31, 1997

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle* 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

- Claim(s) 1-18 and 20-46 is/are pending in the application.
Of the above, claim(s) _____ is/are withdrawn from consideration.
- Claim(s) _____ is/are allowed.
- Claim(s) 1-18 and 20-40 is/are rejected.
- Claim(s) 41-46 is/are objected to.
- Claims _____ are subject to restriction or election requirement.

Application Papers

- See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- The drawing(s) filed on _____ is/are objected to by the Examiner.
- The proposed drawing correction, filed on _____ is approved disapproved.
- The specification is objected to by the Examiner.
- The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- All Some* None of the CERTIFIED copies of the priority documents have been
- received.
- received in Application No. (Series Code/Serial Number) _____
- received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

- Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- Notice of References Cited, PTO-892
- Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- Interview Summary, PTO-413
- Notice of Draftsperson's Patent Drawing Review, PTO-948
- Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-7, 9-10, 14-16, 18, 20-27, 29-30 and 34-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parulski et al. (U.S. 5,900,909), Uekane et al. (U.S. 5,559,554) and in further view of Okuma et al. (JP 4-120889).

Regarding Claim 1, Parulski et al.'909 teaches providing a first orientation associated with the previous image and storing the image (col. 5, lines 56+) including storing the information relating to the first orientation (see figs. 4 and 6) associated with the image (See fig. 5 ; fig. 8 explains the image being input into a RAM 52 via line 50). However, Parulski et al.'909 fails to specifically teach determining a second orientation associated with the image capture unit at a display time corresponding to displaying the image after the image is captured, the second orientation capable of being different from the first orientation. Uekane '554 teaches a gravitational direction detecting means (12) for detection of a position and a joint portion (3) which also has a rotational angle detecting switch (11) that detects a relative rotational angle of camera portion to the monitor portion integrated with the camera (see col. 9, lines 60+). By

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having the display on the camera would be advantageous for giving the user the opportunity to view images instantly instead of having to provide a computer for viewing the images. Since Uekane et al.'554 teaches determining the orientation of the display located on cameras, it would have been obvious to combine Parulski et al.'909 with Uekane et al. '554 for the purpose of easily obtaining the images. Therefore, it would have been obvious to one having ordinary skill in the art to have the display included in the camera.

Although Parulski et al.'909 teaches that an image is capable of being displayed in a horizontal orientation (col. 4, lines 20+) even when images are captured in other orientations, it is not specifically stated that the image is displayed in the second orientation on the integrated display of the image capture unit. However, Okuma et al teaches that it is well known in the art to either write data in a memory or read data out of the memory to be displayed in a specific orientation (page 7 or translation, first paragraph- page 8). This would be advantageous in the device of Parulski for the purpose of reading out the video signal, then changing the orientation according to the display. This would delay processing time in the camera and would increase writing speed into the memory. Therefore, it would have been obvious to one having ordinary skill in the art to modify Parulski et al.'909 with Okuma et al by reading out the images stored and displaying the image in the second orientation on the display.

Claim 2 is analyzed and discussed with respect to Claim 1. (See rejection of Claim 1 above.)

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Regarding Claims 3 and 4, Parulski et al.'909 teaches that the first orientation may be either a landscape orientation or a portrait orientation (fig. 4; col. 5, lines 45-48).

Regarding Claim 5, Parulski et al.'909 teaches that the second orientation is an orientation in which a horizontal axis of the image capture unit is substantially parallel to a surface of the earth (see fig. 1; col. 3, lines 60-65).

Regarding Claim 6, Parulski et al.'909 teaches that the camera may capture images in portrait mode, but fails to specifically disclose the second orientation, as discussed in Claim 1, is an orientation in which a horizontal axis of the image capture unit is substantially perpendicular to a surface of the earth. However, it would have been obvious to use this method in the same manner as discussed in Claim 5 if the user, for example chooses to view the images in the portrait mode when the majority of the images taken are captured in this manner. This provides the user to easily view the images with the additional rotation of the images that were captured in landscape to be view without the hassle of rotating the camera or rotating the viewer. Therefore, it would have been obvious to one having ordinary skill in the art to have the second orientation to be an orientation in which a horizontal axis of the image capture unit is substantially perpendicular to a surface of the earth, similar to the discussion in Claim 5.

Regarding Claim 7, Parulski et al.'909 teaches that the images that were reoriented to obtain a portrait-lie effect may have border areas (col. 6, lines 10-14). This teaches that the image must be resized to fit the display since there will be areas which are not associated with the image.

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Regarding Claim 9, Parulski et al.'909 teaches data related to the image is stored in a buffer in a manner which allows the image to be displayed in the second orientation (referred to as RAM 52; col. 4, lines 53+).

Regarding Claim 10, Parulski et al.'909 teaches that reorienting the aspect ratio of the image may include border areas (col. 6, lines 10-15).

Regarding Claims 14 and 15, Parulski et al.'909 teaches the data associated with the image is stored in a first buffer (referred to as a RAM; fig. 8, 52), and is also stored in a second buffer (referred to as PCMCIA memory card; fig. 2, 24). Parulski et al.'909 further teaches that the memory card may be replaced with a solid-state memory fixed inside the camera as an alternative (col. 3, lines 54-56).

Regarding Claim 16, Parulski et al.'909 fails to disclose displaying text in the second orientation. However, Uekane et al. '554 teaches displaying text on the monitor in the second orientation (see fig. 12; 19-21). By having text on the display gives the user an indication of various information associated with the image captured, such as date, low battery, and operation indications. This is advantageous for the user to give them more information about the images being taken and also the status of the camera. Therefore, it would have been obvious to one having ordinary skill in the art to display text in the second orientation.

Claim 18 is analyzed and discussed with respect to Claim 1. (See rejection of Claim 1 above.)

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Claim 20 is analyzed and discussed with respect to Claim 3. (See rejection of Claim 3 above.)

Claim 21 is analyzed and discussed with respect to Claim 4. (See rejection of Claim 4 above.)

Claim 22 is analyzed and discussed with respect to Claim 5. (See rejection of Claim 5 above.)

Claim 23 is analyzed and discussed with respect to Claim 6. (See rejection of Claim 6 above.)

Regarding Claim 24, Parulski et al.'909 teaches an orientation sensor fro determining the second orientation associated with the image capture unit (fig. 2, 40).

Claim 25 is analyzed and discussed with respect to Claim 14. (See rejection of Claim 14 above.)

Claim 26 is analyzed and discussed with respect to Claim 15. (See rejection of Claim 15 above.)

Claim 27 is analyzed and discussed with respect to Claim 7. (See rejection of Claim 7 above.)

Claim 29 is analyzed and discussed with respect to Claim 9. (See rejection of Claim 9 above.)

Claim 30 is analyzed and discussed with respect to Claim 10. (See rejection of Claim 10 above.)

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Claims 34 and 35 is analyzed and discussed with respect to Claim 1. The corrected images are inherently compressed and are then stored on a memory card (24) in proper orientation.

Claim 36 is analyzed and discussed with respect to Claim 1. (See rejection of Claim 1 above.)

Claim 37 is analyzed and discussed with respect to Claim 1. (See rejection of Claim 1 above.)

Claim 38 is analyzed and discussed with respect to Claim 1. (See rejection of Claim 1 above.)

Regarding Claim 39, Parulski et al.'909 teaches using at least one orientation sensor (40).

Claim 40 is analyzed and discussed with respect to Claim 34. (Gravitational direction detecting means is equivalent to an orientation sensor). See claim 34 above.

2. Claims 8 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parulski et al. (U.S. 5,900,909), Uekane et al. (U.S. 5,559,554), and in further view of Parulski et al. (U.S. 5,270,831).

Regarding Claims 8 and 28, neither Parulski et al.'909 nor Uekane et al. '554 teaches cropping the image to fit the display. However, Parulski et al.'831 discloses reorienting an image for display on a tv monitor. In col. 7, lines 27-33, Parulski et al.'831 discloses that conventional

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monitors employ a display screen having a 4:3 aspect ratio in which a 3:2 aspect ratio image stored in the memory will be shown. Parulski et al.'831 discloses that some degree of cropping of the image will be necessary in order to fit the image with the display. It would have been obvious to use the same method in camera with a display having a certain amount of aspect ratio to fit a reoriented image so that the viewer may see the image since the ratios will have different values. Therefore, it would have been obvious to one having ordinary skill in the art to crop the image to fit the display.

3. Claims 11, 12, 13, 17, and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parulski et al. (U.S. 5,900,909), Uekane et al. (U.S. 5,559,554), and in further view of Kang et al. (U.S. 5,949,408).

Regarding Claims 11, 12, 13, 17 and 31-33, neither Parulski et al.'909 nor Uekane et al. '554 teaches at least one graphic, one icon, or one directional icon is displayed on the display. However, Kang et al. '408 teaches that a plurality of graphics, such as icons, are displayed on a display in either a first or second orientation (figs. 3 and 4). Kang et al. '408 discloses these graphic icons on the border areas of the display in which the image may be changed from landscape mode to portrait mode (fig. 3, and 4; see elements 46 and 48). The portrait or landscape display icon (68) is a directional icon in which the user may rotate the images displayed. The purpose of having the icons present is to give the user a variety of functions with respect to the images (col. 5, lines 11-29). With Parulski et al.'909 teaching of reorienting the aspect ratio

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of the image may include border areas (col. 6, lines 10-15), it would have been obvious to include the teaching of Uekane et al. '554 by filling in the border areas with icons so that the user may view images and operate different functions simultaneously. Therefore, it would have been obvious to one having ordinary skill in the art to have at least one graphic, one icon, or one directional icon displayed on the display.

Allowable Subject Matter

4. Claims 41-46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art neither teaches nor fairly suggests an image capture unit including an integrated display comprising the steps of determining a first orientation associated with the image at capturing of the image, the image being a captured image, storing the image including storing the information relating to the first orientation associated with the image, determining a second orientation associated with the image capture unit at a display time corresponding to displaying the image after the image is captured, the second orientation capable of being different from the first orientation, determining whether the first orientation is different from the second orientation and displaying the image in the second orientation on the integrated display of the image capture unit, further comprising determining a third orientation of the image capture unit, determining

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whether the third orientation is different from the second orientation, the first orientation, or both,
and rotating the image to be displayed in the third orientation if the third orientation is different
from the second orientation.

Conclusion

5. Any inquiries concerning this communication from the examiner should be directed to **Jacqueline Wilson** whose telephone number is (703) 308-5080. The examiner can normally be reached Monday-Friday from 9:00 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wendy Garber**, can be reached at (703) 305-4929. The fax number for this group is (703) 308-6306/6296.

Any response to this action should be mailed to:

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or Faxed to:

(703) 308-9051, (for formal communication intended for entry)

or:

(703) 308-6306/6296, (for informal or draft communications, please label
“PROPOSED” or “DRAFT”)

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, V.A., Sixth Floor (Receptionist).

JBW


June 16, 2000



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